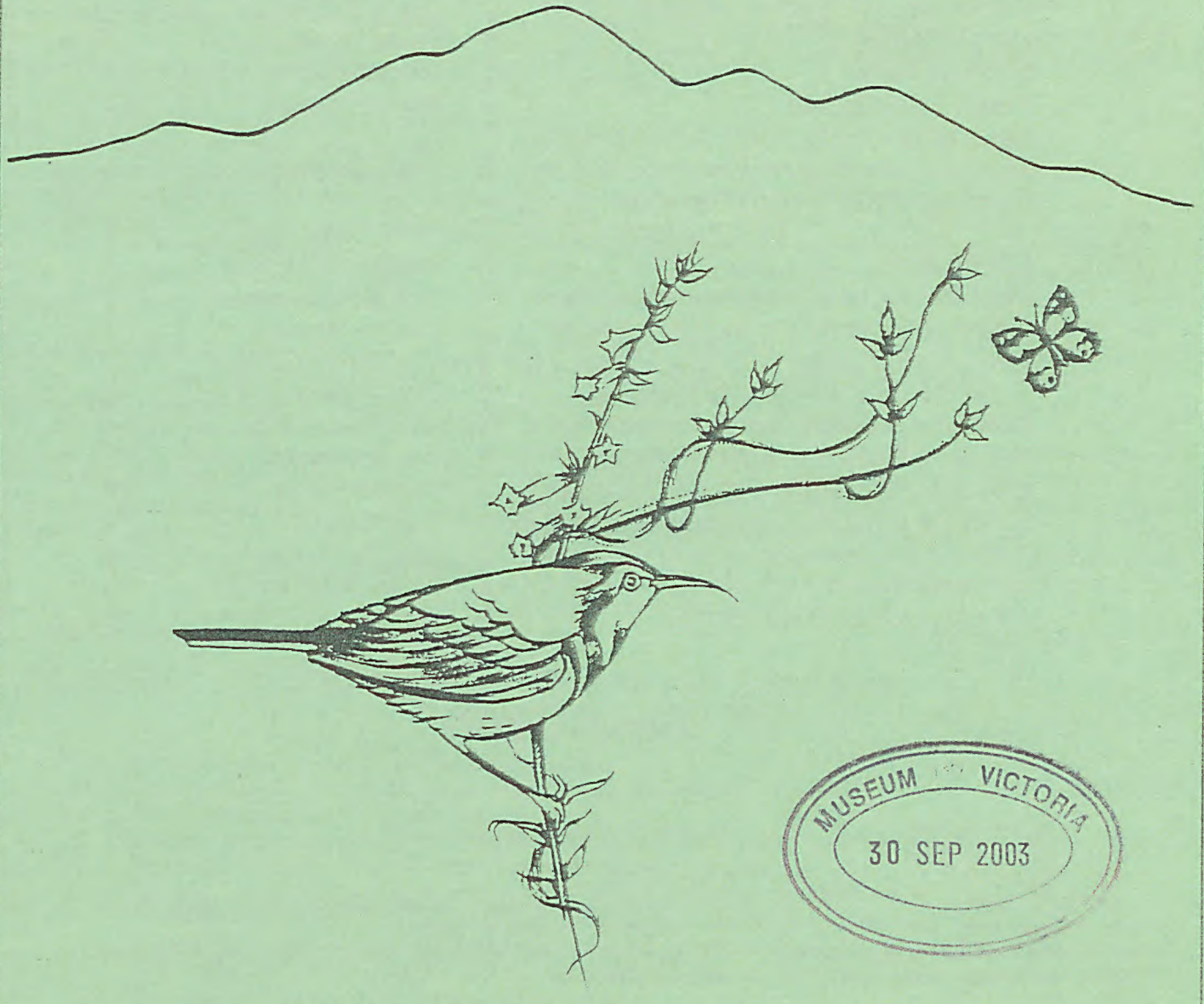
GEELONG NATURALIST

MONTHLY PUBLICATION OF THE GEELONG FIELD NATURALISTS CLUB INC



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COMING EVENTS

NOVEMBER

5	General Meeting	Bill Birch 'Volcanoes of Victoria'
9-18	ANN Launceston	
12	Plant Group	CANCELLED
17	Excursion	Mt Elephant & Lismore birds Leaders: Diana Primrose, Isobel Wager
19	Bird Group	Danny Rogers 'The Painted Snipe'
21	Mid-week Bird Group Excursion	Lake Connewarre and Hospital Swamps – Leader: Gordon McCarthy
26	Biodiversity Group	Workshop Meeting

DECEMBER

1	Challenge Bird Count	
3	General Meeting	Members Night – Christmas Breakup at the Geelong Botanic Gardens
10	Plant Group Excursion	
19	Mid-week Bird Group Excursion	Belmont Common – Leader: Don Jennings

The Club Website & home page – the new address

GFNC Web page: http://home.vicnet.net.au/~gfnc/

No email address: please use email addresses of committee members on the back page

PRESIDENT'S CORNER
November 2002

Club Program for 2002/03:
As requested last month – please let us know your suggestions immediately. Planning is underway. Group leaders (Bird, Plant, Biodiversity, Mammal) are asked to start planning their programs now, to submit to the Program sub-committee in February 2003.

Publication Sub-committee Meeting:
A meeting is planned to be held early next year to deal with issues relating to the production of the *Geelong Naturalist*. Items for the agenda are being called for now. Members are invited to submit matters they feel need to be addressed, to the Secretary or President by December 3rd (the December General meeting). The sub-committee will comprise of a nucleus of Committee members, but will be open to members wishing to have input into recommendations. These recommendations then need to go to the Committee for acceptance/ratification depending on budget constraints, etc.

Environment Victoria representative:
A correction - last month I announced that Dave King had accepted to be the GFNC representative on Environment Victoria Council. Dave is happy to receive EV minutes on behalf of the Club and to draw matters to the attention of the Committee as needed. Thankyou Dave.

...Diana Primrose

Tonight's speaker is Dr Bill Birch...
he will be speaking on Volcanoes of Victoria.

Dr Bill Birch is Senior Curator in Geology at Museum Victoria, where he has worked since 1974 after gaining his PhD at Melbourne University. His main interest is in the chemistry of minerals, which has led to most of his research publications and has helped to develop the Museum's extensive mineral collections. He also has a strong interest in the diverse geology of the Victorian region, in particular the young volcanic features on the western Victorian plains.
Dr Birch's role at the Museum includes research, development of the collections (for display, research and conservation/heritage purposes), and providing information and identifying geological specimens for the public. He has close connections with professional groups in mineralogy, gemmology and geology, and is a member of several international committees dealing with aspects of mineralogy.

December 3, 2002 General Meeting...
This is our 'Christmas break up' meeting and is taking quite a different format from our usual meetings.
As announced in the September Geelong Naturalist, this meeting is to be held at the Geelong Botanic Gardens in the new temporary meeting rooms. This will be largely a social evening with an opportunity to meet people involved in the exciting new developments taking place at the gardens, and for us to get a 'feel' for the location. GFNC is a proposed 'partner' in the second stage of the development which includes the building of an 'information/ education' centre.
We have invited Jayne Salmon (President of the Friends of the Geelong Botanic Gardens), John Arnott (Curator GBG), and Rob Small (Environment & Recreation Officer with COGG), to join us. There will be no speakers as such, but several FOBG guides will be available to take conducted tours around the original section of the gardens and explain items of significance. (We are not including the new 21st Century garden that night, as this is the venue for our ½ day excursion in January 2003).

(See page 3 for details)

EXCURSION - Mt Elephant and Lismore birds
Sunday 17th November 2002

8.45 am	Assemble at Clairvaux to arrange car-pooling etc.
9.00 am	Depart for Derrinallum via the 'scenic route' through Gnarwarre.
11.00 am	Arrive Derrinallum for toilet stop and (late) morning tea.
11.25 am	Leave to meet local member of Mt Elephant volunteers group, Peter Davis, at the mount car park.
11.30 am	At the car park area. Peter will explain background history of area, the joint project of the Derrinallum and Lismore Community Association and the Trust for Nature in acquiring Mt Elephant for the community. Those who can, will walk up to the top and view the crater, the recent poa plantings, and magnificent views of the surrounding countryside. Those less able, Peter has offered to ferry up in his 4WD. (Individual 4WDs may not be welcome to drive up). We will spend nearly two hours here during which we will have lunch. Some may like to have their lunch up on the crater.
1.50 pm	We will leave the crater and take a short drive down to Bob Hughes place.
2.00 pm	Meet Bob Hughes to spend the next hour or two viewing birds in the local area under Bob's guidance. Bird Group members will remember Bob and Mike Sturmfels speaking to them at last November's Bird Group meeting.
4.00 pm	(Approximately) Depart for home.

This is a great opportunity to have a close look at this wonderful volcanic crater – the 'light house of the plains' to many a swagman and traveller in days of yore. 'One of the highest and one of the major scoria cones in the largest homogenous volcanic plains on earth' – quote from National Trust's Register of the National Estate. Our speaker tonight, Bill Birch, and his topic 'Volcanoes of Victoria' should inspire many of us to take this excursion through these volcanic plains!
We hope for a good bird day (afternoon) to complete the excursion. Bob and Mike created a lot of interest with the Bird Group last year – if the birds are about I am sure Bob will find them!
PS: It would be appreciated if we could each contribute a gold coin towards the work being done on Mt Elephant. I will 'send around a hat' at lunch time

Leaders: Diana Primrose (Phone: 5250 1811) and Isobel Wager

Out and About

...Valda Dedman

Surrounded by pink blossom it hung by its toes, its wings tightly folded around its body, its grey fox-like head and ginger ruff protruding. It was alone, at the edge of Waurn Ponds Creek and took no notice of visitors peering at it. A fortnight later it was still there, but it was dead.

It was a Grey-headed Flying Fox, a fruit bat, perhaps one of the colony located at the Melbourne Botanic Gardens, which rarely venture further south than that haven which used to be flying fox heaven.

Flying foxes were first recorded in Melbourne in 1880, but it wasn't until 100 years later that a permanent camp became established in the fern gully in the Botanic Gardens. At the beginning, when numbers were relatively small, they were regarded as something of a tourist attraction, What at the time were thought to be abnormally large autumn influxes of 100 and 800 bats occurred in 1981 and 1982 respectively. In 1983 no flying-foxes were reported anywhere in Melbourne. In 1984 numbers in June were estimated at 150. By 1986 the camp appeared to be permanent, peaking at about 1000 individuals, with some recorded for every month of the year. Now numbers can reach 25 000, with a permanent population of 5000 to 8000, and the sheer weight of their bodies on the branches has killed twenty prized trees.

As a result, efforts have been made to create a new camp at Horseshoe Bend Park on the Yarra River at Ivanhoe. Leaf litter containing bat urine and faeces has been brought in, ropes hung in trees and buckets of food are supplied each night for the 86 flying foxes that have been relocated there. There are also plans to play recorded 'bat conversation' and to install a misting system and fake bats, all to attract wild bats away from the botanic gardens camp.

A few stragglers have been recorded in the Geelong district from time to time. Around 1950 some sixty fruit bats raided the apricot orchards on the Bellarine Peninsula. In March 1995 when there were none at all in Melbourne, Grey-headed Flying Foxes were seen at Lorne, at Point Lonsdale, at Winchelsea, at Newtown and at Belmont.

Bats are Chiropterans and, like computer components, come in Megas or Micros. The vegetarian Fruit Bats are Megas and navigate by sight and hearing. Micros navigate and locate insect prey by echo-locating sonar, and those around Geelong include the Lesser Long-eared Bat, the Little Forest Bat, Gould's Wattled Bat and the White-striped Mastiff-bat.

Bats are the only mammals that have wings and can truly fly. Imagine your fingers were nearly as long as the rest of your arm and covered with two layers of smooth and supple membrane, like finest leather. This membrane extends from your little finger down to your second toe and is attached right up the side of your body From the first finger it extends back to your shoulder. Your thumb is outside and separate and equipped with a hook—very handy for helping you to climb around. Turn your knee backwards and make your toes curl forwards so that you can hang by them. Add some extra muscles to your chest and arms and bundles of muscle tissue within the wing and you are ready to fly like a fruit bat.

The wings of insects have no attached muscles. They move when their roots are twitched by muscles in the thorax that contract rhythmically. Flies have two wings, bees have four wings.

Stan Glowacki, who lives on the fringe of Morwell National Park has found 11 native bee species. Some of these are little winged jewels. The Common Wasp Mimic Bee has a long orange abdomen with one thick black stripe, and violet-black wings. The Emerald Homalictus has an emerald green head and thorax and a black abdomen. The Common Blue-banded Bee has tawny hair on the thorax and females have 4 blue bands on a black abdomen, and the males five. Stan also found a primitive hairless bee that has a shiny black body with large yellow dots. It carries pollen in a special crop and nests in a cellophane–lined hole bored in a pithy stem or the ground.

Victoria has seven of the ten major groups of Australian native bees. These are

- **Reed Bees** *Exoneura* and *Braunsapis.*

Slender, black, less than 8mm long. Nest inside dry pithy twigs, including dead tree fern fronds.

- **Blue-banded Bees** *Amegilla.*

Glittering stripes of blue or whitish hair across black abdomens. 8-13 mm long. Nest in shallow burrows in ground, or soft brick mortar.

- **Teddy Bear Bees** *Amegilla(Asaropoda).*

Rotund, furry, brown. 7-15 mm long. Shallow nests in soft soil, sometimes under houses.

- **Leafcutter Bees** *Megachile.*

6-15 mm long. Cut circular disks from edge of leaves for use as nest-building material.

- **Resin Bees** *Megachile.*

Many colours and sizes—large, black 14 mm with white hair tufts, small 8 mm with bright orange abdomens. Nest in pre-existing holes in timber or brickwork. Sealed with resins or gums, which are also used to build brood cells.

- **Homalictus Bees** *Homalictus.*

Dazzling colours—golden blue, coppery red, green tinged with purple. Less than 8 mm long. Dig intricate branching nests in ground.

- **Masked Bees** *Amphylaeus, Hylaeus, Meraglossa.*

Slender black with pale 'masks' on faces, some with yellow spot on thorax. Less than 10 mm long. Nest in pithy stems or pre-existing holes in wood. Brood cells woven from cellophane-like secretion.

Some flowers have modified anthers, which need to be vibrated at high frequency before they will release their pollen. These include Senna, Hibbertia, Dianella, Tertatheca and various Solanaceae such as tomatoes and capsicum. They need *buzz pollination.* The introduced honeybee cannot perform this act, although Carpenter Bees and Blue-banded Bees are very good at it.

Native bees tend to be most active on bright sunny days, between 10 am and 1 pm. The adults of many species die off in winter, but newly

emerged bees that over wintered as larvae should be appearing from now onwards. Look out also for their nests and other signs such as leaves with circular shapes cut from the edge.

Visit the to the Aussie Bee website www.zeta.org.au/~anbrc/ for more information. The best reference book is still *A Cluster of Bees* written in 1935, by Tarlton Rayment[1], and *Native Bees of the Sydney Region: a field guide*, by Anne Dollin ...[et al.] is a great help with identification. See also Dave king's articles in the *Geelong Naturalist* of August 1998 (Cuckoo Bee) and June 1999 (Carpenter Bee from Ocean Grove).

AND... 10 October—Drama in black and white through the front window. Across the road a handsome male magpie is feeding a young one, scruffy grey. Lots of begging noise. Then dad decides to fly across to our front lawn. Sqwarking baby is left behind, but finally decides to follow the food source, but it walks across the bitumen. Will it make it safely before a car comes along? We watch and breathe a sigh of relief when the road is safely negotiated. A Magpie Lark [mudlark] swoops low over the young magpie, which crouches submissively, with spread wings. Dad goes on looking for food, then mum arrives. The mudlark comes back, but Mum chases it off, but is in turn swooped by the mudlark's mate. She continues walking across the road, unconcernedly pooping when half-way across. No cars. A Willie Wagtail sits on an overhead wire observing the goings-on below and a blackbird remains almost hidden like a shadow in a shrub. We see the yellow bill when it turns its head. More black and white at the newly-filled nectar feeder. An adult New Holland Honeyeater takes a sip, but its young one hasn't yet learned the trick and sits on top, trying to get honey from around the base of the upended bottle.

Black and white again later in the day, when I was looking for native bees—only found introduced ones, feeding on lavender. A Caper White Butterfly slowly flew around me, the first for the season. Strangely, no Cabbage Whites at this time, although they have been here for a few weeks. Caper Whites fly more leisurely than Cabbage Whites, which dart quickly around.

The first week in November is not just Melbourne Cup time, it's Frog Week!

[1] *See the article on the Natural History Medallion, elsewhere in this magazine.*

December Christmas Meeting

Please 'bring a plate' to contribute to the supper.

Venue: Geelong Botanic Gardens.

Parking: GBG Nursery Carpark – if proceeding East along Ryrie Street, take the first turn left after The Geelong High School and playing fields (Holt Road – Melway map 452 G5), proceed to the intersection of the Eastern park Circuit, the nursery is straight ahead.

Time: From 7.30 pm.

We will form into groups as people arrive, to be taken on a guided walk around the gardens.

At about 8.30 pm we will have a brief 'formal' section of the meeting, then enjoy our Christmas supper together.

Mammal Atlas

...Trevor Pescott

Since our mammal atlas project was launched earlier this year, about 120 sightings have been recorded, involving 24 species. The following are some that have been received:

Platypus 1 Barwon R. just above Moorabool R. 23.6.02 JHe
1 Barwon R. above Baum Weir 12.9.02 GMc
Water Rat 1 Eastern Beach 31.8.02 CFa
Koala 1 Kaanglang Rd. Forrest 14.9.02 JHe
4+ Granite Rd Anakie 17.10.02 MGr
Red-necked Wallaby 1 Delaneys Rd Barwon Downs 15.9.02 TPe
Common Brush-tailed Possum 1 Drysdale 16.9.02 JHe
Swamp Rat Many runways, Blackgate Rd 22.9.02 TPe
Common Ringtail Possum 1 Leopold 4.9.02 BHe
1 Aberdeen St/Shannon Ave 10.10.02 TFe
Dusky Antechinus 1 Yaugher, Otways 20.10.02 TPe
Sugar Glider 1 You Yangs 23.10.02 TPe
Agile Antechinus 1 (with pouch young) Sheoaks 23.10.02 CPa

JHe Jo Heatlie, CFa Chantelle Farnsworth, BHe Brendan Heatlie, GMc Gordon McCarthy, TPe Trevor Pescott, TFe Terry Feldman, MGr Mammal Group, CPa Cambria Parkinson.

An email from Barry Lingham...

Sunday, September 22, 2002 ...

Hello to all in the GFNC

I am currently tripping around Europe; this message is sent from Bilbao (I am on a secret mission to steal their Guggenheim and transport it to the Geelong Botanic Gardens).

We started off from Leicester at the end of August, with four days in Northern Wales (a beautiful walled city called Conwy) and then by ferry to Dublin. We rented a cottage in the Burren area of County Clare. The area had a surreal lunar landscape with eroded limestone rocky hills. From there we went by ferry to France where our car broke down in a magic spot called St Malo. This walled city was founded by pirates and they didn't really ever believe they were part of France. The last week was spent in a gite (converted barn) near Bordeaux. Very relaxing and the wine is cheaper per litre than the petrol! We have just reached Northern Spain. It has stunning mountains but the huge amount of building and industrial development in the towns makes a pretty ugly overall impression.

We will be returning at the end of November after seeing a bit more of the continent.

Reedy Lake Update

...Trevor Pescott

Our regular, if very infrequent, meetings continue about Reedy Lake water-level control. Our most recent was on October 22 and was attended by representatives of the Field and Game Association (Ian McLachlan), Rod and Gun Club (Horst Pfeifer), GFNC (Trevor Pescott) and Parks Victoria (Lachie Jackson & Peter Kemp).
In summary, we agreed that maintaining the water level at about 0.8m AHD was the best option for the time being. This is achieved mainly by regulating river-flow in and overflow out via structures built at the time the lake was dried out about four years ago. Background information is in *Geelong Naturalist* Vol. 33, No. 10, March 1998.
The following details of the lake management and other activities is a summary of two brief reports presented to the meeting by Parks Victoria and Field & Game Association representatives:

- Vegetation – a large aerial photograph taken in September 2002 showed extensive beds of Cumbungi, reeds and eel-grass. It indicates a very healthy vegetative structure, the best for perhaps 10–15 years.
- Carp – a small number of large ones are in the lake, brought in with the last flood. So far they aren't doing any significant damage. A report by NRE carp research officers has been completed but it is not yet available. There is no intention to do more research at Reedy Lake. Rod and Gun Club want to do a carp-fishing competition on Reedy Lake to test whether they can significantly reduce the population – that was agreed to subject to it being after bird breeding is finished e.g. in January–February.
- Eel-fishing – the licence to harvest eels remains current but no details on recent catch of eels, or by-catch of carp, was available.
- Maintenance – some work, to remove cumbungi, from the outlet channel has taken place
- Birds – there is confirmation of Pied Geese breeding on the lake with 8 young seen on 6 October; there is also a large colony of Straw-necked Ibis (about 1000 nests), and some White Ibis, on the lake. A bird count on 6 October by Field & Game Association recorded 2500 Grey Teal, 1000 Aust. Shovelers, 350 Hardheads and 3000 Eurasian Coot.

In conclusion it was agreed that we should try to maintain the current water level at about 0.8m to ensure adequate water remains at least until the ibis breeding is complete. However, ultimately, this depends on river-flow and rainfall – without both we have little control over the way the lake water-level can be manipulated.
(Footnote – I hope, if the drought prevails, the State Government will not allow a duck-shooting season in 2003. If they do go ahead, Reedy Lake may become one of the more heavily shot-over lakes at least locally.)

NEWS BITES...

You may not have seen this good news about Box Ironbarks!
With the Bali tragedy dominating the newspapers, many of you may not have heard the good news about Box-Ironbark. The bill to declare the parks has passed through both houses of parliament – we won! We will get our much-needed new conservation reserves! Everyone who wrote a letter or sent an email in support of the parks, pat yourself on the back!
[This was part of an email from Jason Doyle 0419 153 374]

Biodiversity Conference
Bernie Franke sent in this notice that he found on the internet!

The Ballarat Environment Network (BEN) is hosting a biodiversity conference and tour on Saturday 30 November and Sunday 1 December. The conference will present a broad range of information on biodiversity, describe recent policy and planning initiatives and showcase practical solutions to biodiversity management on both private and public land.
On Sunday, explore some high quality sites with Ballarat naturalists including Tim D'Ombrain, Roger Thomas, and Ray Draper.
Keynote speaker is Alan Reid (Patron of the Gould League) and the conference will also include the launch of the *Wild Things of the Ballarat Area* CD-ROM and the launch of the BEN Biodiversity Reserves – Managing Grassy Woodlands Program (BEN has taken over the day to day management of some smaller, high quality reserves from bodies such as NRE).
For a full conference program and registration form contact Marianne Schrieke on 53413177 or Tim D'Ombrain on 53461495 or go to the Ballarat Environment Network website (www.goldlinksweb.com/ben) where the program and registration form are available for those with a printer.
The cost of day one is $30. The tour on day two is $20.

Seaview Park Group

...Dick Southcombe

Fifteen enthusiastic members and friends attended the working bee/inspection of the Belmont Escarpment within Seaview Park on Saturday 26 October. Weeds, Giant Mustard *Rapistrum rqagosum*, Boxthorn *Lycian ferocissimum*, Pepper Tree *Schinus molle*, Tuart *Eucalyptus gomphocephla* and the remains of an old fence were removed.

New Holland Daisy *Vittadinia* sp. Was in flower (my first sighting) as were seven other regionally significant plants. Coast Fan-flower *Scaevola albida* was abundant and flowering profusely on the limestone ledges. Sweet Hounds-tongue *Cynglossum suavelons* was not seen among the Bluebells and Bindweed where it was noticed last Spring. We were particularly pleased that Councillor Bob Binnie who holds the CoGG environment portfolio was able to share refreshments, discuss the Park's future and inspect the indigenous vegetation (and weeds) with us.
Like many people, he was surprised to find an endangered remnant grassland within urban Geelong and encouraged us to correspond with him regarding Council and GFNC working together to conserve the escarpment habitat.

The Australian Natural History Medallion

...Valda Dedman
69 North Valley Road, Highton 3216
dedmanv@iprimus.com.au

Tarlton Rayment was a beekeeper from England, whose interest spread from the introduced honeybee to Australia's native bees, which fascinated him. From 1902 until 1960 he collected specimens, which are now in the Australian National Insect Collection. In the 1950s there was hardly an issue of the *Victorian Naturalist* that did not contain an article on native bees by Tarlton Rayment. He described new species, their biology and habitat, always accompanied by a sense of wonder. He also published many articles in the *Australian Zoologist*. In 1935, with Noel Monckton he produced *The Cliff Dweller*, the first film ever made on the Australian native bee. The pair filmed a tiny red bee nesting in the cliffs at Sandringham, where Rayment lived. In that year, too, his monumental work *A Cluster of Bees* was published, 752 pages of text and original drawings still regarded as the most definitive reference to Australia's bees.

In 1951 he was awarded the Australian Natural History Medallion. In 1953 the Portland FNC sponsored *The Bees of Portland*, which described some 30 new local species. This booklet was largely inspired by his work at Gorae West with Cliff Beauglehole. Twenty years later, in 1971, Beauglehole was also awarded the Natural History Medallion, not only for his work as an entomologist, but as a botanical recorder extraordinaire. During his lifetime he collected 90 000 plant specimens which are now in herbaria all around the world. These formed the basis for his published plant lists for each region of Victoria. He also organised the collection of 5000 beach-washed seabirds, whose skeletons were donated to museums in Australia and the United States, and the investigation of bone deposits in limestone caves, which has added greatly to our knowledge of faunal succession in the Western District.

The Reverend H.M.R. Rupp, the Medallionist of 1954, was an orchid man. Wherever his parish happened to be, he studied and catalogued its plants. In 1896, while a theological student at the University of Melbourne, he compiled a list of plant species of the Merri Creek, which has proved invaluable in restoration work. Later catalogues include Wando Vale, Coleraine, Buninyong and Beeac. He discovered and described new orchid species, often publishing his findings in the *Victorian Naturalist*.

Jean Galbraith left school at 14, and lived all her life in Gippsland, but that did not stop her from teaching herself botany and eventually writing a field guide to all of the plants of south-eastern Australia. She joined the Field Naturalists Club of Victoria as a country member in 1923 and contributed 125 articles over 56 years to the *Victorian Naturalist*, bringing plants to life on the page through her choice of words which reflected her own keen enjoyment of her subject. She was the Medallionist for 1970.

The Australian Natural History Medallion was first awarded in 1940, to Alex H. Chisholm, for ornithology and natural history. The 63rd medal will be presented on November 11, to Ian Endersby, who spoke about dragonflies at the GFNC general meeting in July 1998. Only twelve women, mostly connected with botany, have received the award, the first being Edith Coleman in 1949. Husband and wife, Joan and Alan Cribb, have both received the Medal, Joan in 1994 for her work as a botanist and mycologist and Alan in 2001 for his work on seaweeds. Two sets of brothers have been honoured—Dominic (1956) and Vincent Serventy (1974), and Roy (1965) and Jack Wheeler (1977). Jack was the first GFNC member to be given the award, and Trevor Pescott gained his medal in 1983.

Many of the Medallionists have also been scientists or academics in their chosen field, but that is not their primary qualification for the award. All have been outstanding 'ordinary' naturalists, willing to share their expertise and exhibiting a genuine enthusiasm for the natural world and its preservation. Many have held executive positions in Field Naturalists Clubs, some have edited club journals. Some are household names to other field naturalists—people like Crosbie Morrison (1947), Jim Willis (1960), Graham Pizzey (1986), Ken Simpson (1996), Alan (Timelines) Reid (1993).

The Geelong Field Naturalists Club has always supported this prestigious natural history prize. Our club is represented on the General Award Committee, that chooses the judging panel, which has included GFNC members from time to time. The Medal is an important indicator of the valuable contribution which those connected with 'natural history' make to the sum of knowledge. Unfortunately there are only three nominations in hand for the 2003 medal. More details about the medal, its rules, dossier guide and nomination form can be found at www.home.vicnet.net.au/~fncv/anhm/. It is essential that the work of people such as Tarlton Rayment or the Rev. Rupp does not go unrecognised. There are many people worthy of receiving the Australian Natural History Medallion, which has been likened to a Nobel prize (but without its financial benefits). It is up to us all to see that it continues to be awarded, by making or supporting a nomination and by making a donation to the ANHM Trust Fund.

We welcome new members

Robin & Steven Atkinson
Jenny & John Bingham
Michael Kidman
Murray Mills

to the Club and wish them a long and happy association.

Excursion Report Inverleigh Flora and Fauna Reserve
20 October, 2002

PLANTS
...Dick Southcombe

Although there was insufficient sun to cause opening of the Sun Orchids many other small plants were found flowering at sites known to our expert leaders, Diane Hughes and Neil Anderson.

The surprise of the day was the extent of Clover Glycine *Glycine latrobeana* found flowering at each of the sites we visited; it was only a few years ago that GFNC members were unable to find even one plant in the Reserve. A large patch of Hoary Sunray *Leucochrysum albicans* within a grassy site made an impressive display.

Another highlight was a patch of Bronze Bird Orchids *Chiloglottis pescottiana,* a natural hybrid of the Dainty *C. trapeziformis* and the Common *C. valida.* The Dainty was found within the patch but the Common has not been located despite Neil's constant searching.

The Reserve appears to be over-run by kangaroos at present; many plants showed evidence of grazing. Is this due to climatic conditions, is another count necessary?

BIRDS
...Polly Cutcliffe

The meeting spot provided a good start for bird observations – Red-rumped Parrots, Striated Pardalotes, Yellow-faced Honeyeaters, Restless Flycatcher, Superb Fairy-wrens, Kookaburra, Magpies, Sulphur-crested Cockatoos, Tree Martins (collecting nesting material from the gravelled road verge), Red Wattlebirds, Shelducks, (and on return later in the day – Yellow-rumped Thornbills and Starlings).

Others were progressively added to the list at our observation stops during the day. The area near the dam yielded Red-browed Finch, White-eared, White-plumed and White-naped Honeyeaters, Spotted Pardalote, Grey Shrike-thrush, Grey Fantail, Willie Wagtail and Yellow Robin.

The birds seen or heard in all areas throughout the day were Yellow-faced Honeyeater, Superb Fairy-wren, Striated Pardalote and Red Wattlebird.

INVERTEBRATES
...Dave King

In addition to surveying the orchid flora a number of invertebrates were collected. It was suggested to the group that an eye should be kept out for any insects seen visiting the orchids, with a view to establishing a potential pollinator. Unfortunately cold and strong winds probably kept many flying insects grounded.

A number of invertebrates were collected, but many are still awaiting identification. Of particular interest was the discovery of a large colony of the ant *Papyrius nitidus* (Mayr). The colony had taken over the entire log of timber, which was some 4 – 5 m long. *P. nitidus* is host to the larvae of the Small Ant Blue Butterfly *Acrodipsus myrmecophila,* (formerly *Pseudodipsus myrmecophila*) the GFNC emblem. No butterflies were to be seen, probably extinct in the area, as is the case in the Ocean Grove Nature Reserve.

Another ant species, the Bull Ant *Myrmecia simillima,* was very evident. It is a common species in the dry sclerophyll woodlands of S. E. Australia

The flowers of Helichrysum sp. were abundantly inhabited by a small beetle of the family Dermestides, probably a *Demestes* species. These very small beetles were probably seeking nectar, at the same time acting as pollinators. Their elytra is covered with short hairs, which under the microscope were seen to have collect a great deal of pollen.

Library Notes
...Heather Cameron

New Book and CD-Rom
Following Alan Reid's visit to us as a guest speaker he has kindly donated his book *Banksias and Bilbies: seasons of Australia: a weekly guide to natural events in Australia with space for your own observations*, Gould League of Victoria, 1995, based on the ancient Aboriginal diaries, and a CD-Rom *Timelines*, Viridans Pty Ltd, 1998, containing the book, a database, photographic images, maps and descriptive text.

In addition to books the GFNC library contains about 30 current periodicals, the last issue received of most of them being September or Spring 2002.

Some of these periodicals are newsletters from independent environment groups (i.e. not 'Friends of ...' groups or Field Naturalists Clubs) such as:
Angair (Anglesea/Aireys Inlet Society for the Protection of Flora and Fauna) newsletter
Bush Heritage News (Australian Bush Heritage Fund – Buying Back the Bush)
Geelong Environment Council newsletter
Habitat Australia (Australian Conservation Foundation)
Natural Selection (Flora and Fauna Geelong)
Otway Ranges Environment Network (OREN) newsletter
Ripples (Australian Platypus Conservation)
Timboon Bushland Co-operative newsletter
Timelines: Australia Project News
Trees and Natural Resources (Natural Resources Conservation League of Victoria)

Next month: newsletters from Government Departments and associated organisations managing the environment.

Plant Group
...Dick Southcombe

As all members who attended the October meeting apologised for their absence at the next meeting, the November 12 meeting has been cancelled.

A Night and a Morning in the Long Forest

...Marilyn Hewish
97 Grey St., Bacchus Marsh, 3340

On 5-6 October, 2002, my husband Dean and I camped overnight at the bottom of Happy Valley Track in the Long Forest with a specific purpose (and with the ranger's permission). We took a tape recorder and a tape and played it over the valley at about 8 pm. And a bird answered. It was a Barking Owl.

This was the closest we could get in the reserve to a property which used to belong to a friend. Until she left in the mid 1990s, she used to hear Barking Owls regularly from a ridge covered with Bull Mallee woodland and an adjacent gully. We thought we'd check if they were still there.

Barking Owls have two main calls – a 'woof woof' call and a screaming call. The bird in the Long Forest answered with the screaming call. This is probably the origin of many Australian ghost stories. It's like a woman screaming out 'help' at the top of her lungs, very loud and drawn out. This call sounds weird enough when you play it on a tape recorder in the kitchen in broad daylight. In the dark in the bush, even when you are expecting it, it raises the hairs on the back of your neck.

In 1986, I slept one night on our friend's veranda hoping to hear the Barking Owl. I tried to stay awake to listen, without success. In the middle of the night the owl gave the screaming call, and I sat up in the sleeping bag with a jolt, my heart racing, even before I was properly awake. It took me a few seconds to realise that this wasn't scary, this was actually my plan, and I could calm down.

To get back to our overnight camp – the next morning as Dean and I were eating our porridge in the Long Forest, I heard a call that really woke me up. I said to Dean 'What do you think that is', and he answered straight away 'Crested Bellbird'. And so it was. It called three times from a slope where mallee comes right down to the creek. This is the first definite record since 1986. Despite the fact that Crested Bellbirds have been recorded here since 1894, they are very elusive. Three calls was a luxury – usually all you get is one. They probably don't need to call much as the birds are very sparse and don't need to vigorously defend territories.

While I was out of the camp birding, Dean heard a Fuscous Honeyeater, which is rare in the Long Forest. A small number stayed for the winter in 2001, but they haven't been recorded before or since. This bird didn't stay, probably moving through on the way north – another piece of evidence that the creeks are used as flyways at the times of bird movements. Fuscous Honeyeaters have been common in the Brisbane Ranges this last winter.

As we waited in the car park for our daughter Cathy to pick us up, a flight of woodswallows drifted over – 50 White-browed with one Masked among them. I saw White-browed for the first time this season a few days ago on 2 October, also in the Long Forest, but this was the first Masked. The sound of White-browed Woodswallows overhead is always wonderful to hear, but I always find it a source of tension until I can catch sight of the tiny dots high up. I like to see them to get a count and check for the odd Masked Woodswallow.

A few days ago, I confirmed a Black-shouldered Kite breeding record in the Long Forest. I saw the adults displaying and chasing away Brown Falcons from a particular tree in late July and early August. Then I went on holidays (bad timing). I didn't get back to the spot until recently. On 3 October, there was a juvenile perched in this tree (large eye-patch, brown nape, brown and white speckled back, dark primary wing-feathers with white tips). I saw it push into a clump of foliage and thought that it must be having a rest on the nest. On 4 October, I watched the young bird being fed by a parent, by passing prey in flight. The young one flew below, flipped over and grabbed the prey in its claws as the birds crossed at about a million miles an hour. What a difficult manoeuvre to ask of a young bird! Just as well humans don't have to do it that way. The young kite did lose control a little after it took the prey, and had to land on the ground. Still, it got its dinner.

This year and next year are my last chance to get bird records, especially the missing breeding records, for the Long Forest, as I plan to write up my study next year. You can bet I'll be spending a lot of time in my favourite birding place.

I would like to take this opportunity to thank our Secretary, Alison Watson, for stepping into my shoes and producing September and October's 'Geelong Naturalist' whilst I was on holidays.
Claire Greenwell (Ed.)

Red-footed Boobies of Cocos Islands report of the talk given by Barry Kentish on at the General Meeting, 1 October, 2002

...Claire Greenwell

Barry Kentish has been a lecturer in wildlife ecology at the University of Ballarat since the late 1970s after completing post graduate work on the breeding behaviour of the Common Wren at Durham University.

In the mid 1990s he was given the opportunity to visit the Cocos (Keeling) Islands to review the population survey program for Red-footed Boobies. Surveys of Red-footed Boobies had been running for 10 years on North Keeling Island. This rare opportunity to visit one of the most beautiful tropical islands gave him a brief insight into the social and political complexity of wildlife management issues. This talk will characterise some of the issues that affect management of Red Footed Boobies in Cocos (Keeling).

Background information...

The Cocos-Keeling Islands are 2700 km NW of Perth and approximately 1000 km south of Indonesia.

Location – 12^0 30 S 96^0 50 E

There are two coral atolls – Cocos Island and North Keeling Island which is totally a National Park.

The ocean is approximately 1000m deep between the two sets of atolls.

The southern atoll consist of 26 islands – 122 ha – North Keeling one island – 73 ha of habitat.

It has a tropical climate and is in the **cyclone zone** with the temperature ranging 18 – 32^0 C, rainfall 850-3300 mm, evaporation 2000 mm and 15 km of roads!

History...

The Island group was named after the coconut *Cocos nucifer* which was abundant even before colonisation.

Captain William Keeling was the first European to sight the islands in 1609.

It was settled in the early 19th century – mainly short stays from shipwrecked sailors.

In 1825 Clunies-Ross made a brief landing, and in 1826 Alexander Hare started a settlement followed by Clunies-Ross in 1827.

Malay workers joined Clunies-Ross and the Clunies-Ross family became 'Kings of the Cocos' and they reigned for 150 years.

In 1857 the islands were declared part of the British Dominions and in 1886 Queen Victoria granted the islands to Clunies Rosses (CR) in perpetuity.

Important during both WWI and WWII.

1955—Territory of the Commonwealth.

1955-1977—islands were the responsibility of an official rep. of the Australian Government.

Cocos Malays were paid in plastic CR money; they couldn't choose whom they would marry; but had free education and medical etc.

- UN intervention mid to late 1970s.
- 1978—bought for $6.25 million, except for the CR property (presumed that means the house and grounds).
- 1979—Cocos Malay local government Council created.
- 1984—Malays voted to become part of Australia.

Approximately 120 non-Malays—teachers, administration & service personnel—usually on short contracts; he mentioned something about people coming from remoter parts of WA, i.e. people accustomed to more isolated places; but even still find the whole thing wearing a bit thin by the end of their two years or whatever.

- Approximately 450 Cocos Malays, Muslims, living in traditional kampong.
- 1800–1986, copra was the main economy.
- High unemployment amongst the Cocos Malays.
- Cocos Islands Cooperative Society Limited and Shire (set up in 1995)
- Tourism—approx. 30 beds available.

South islands:

- Direction Island is the only place boats can land—quarantine.
- Home Island—Clunies Ross family, Cocos Malays live there.
- West Island—where the non-Malays live; airport, which doubles as a golf course when no planes are due.
- Traditional Malay ferry (sail, no rudder) 4 times a day between Home and West Islands.
- Malays probably from Sabah, still live in a traditional 'kampong'.

Slides of maps showing the where the different groups lived and worked as well as the National Park.

Slides of the idyllic beaches where there was little else to do but swim and dive.

The traditional ferry was a rudderless sailboat and the island ferry was canoe.

Coconuts found there predate European settlement. Coconut plantations established. It is quite dangerous to walk or particularly sit under the coconut trees as they have a tendency to drop coconuts on your head.

The coconut crab is large in size and has a good appetite for Booby nestlings that fall from flimsy nests.

North Keeling Island was named after Captain William Keeling who sighted it 1609. It is uninhabited – the longest period of habitation, by the Cocos-Malays, is for approximately 3 months [each year] when cutting firewood – with no permanent exotic species.

The German ship *Emden* beached there in 1914 after being routed by the *Sydney*, it was salvaged between October 1915 and January 1916.

It is the sole site for the endangered Buff-banded Rail (endemic sub-species) and has extensive seabird colonies.

Bird surveys on North Keeling...

North Keeling is pristine habitat, 2 km long, 500 m wide and 73 ha of breeding habitat. It is covered in tropical rainforest, is hot, humid, has mosquitoes and dense vegetation and so it's not a lot of fun to work there.

Objectives of the study
The study's aim was to find out how the Red-footed Booby population was estimated, how accurate was the estimate of the population and the rate of population increase. They needed to know to see if there are enough birds for a sustained harvest.

The Problem – a harvesting issue???
The Red-footed Booby (RFB) is a protected species but not rare in the world, however the Cocos (Keeling) Islands have the largest Australian population of RFB. The Federal Minister can allow the **sustainable harvesting** of protected species for cultural reasons, and the harvesting of RFB has significance to the Cocos-Malay population especially for wedding feasts and special days, and as it is a cultural thing, it would be desirable to allow some continued harvesting. In the 1980s it became apparent that harvesting was unsustainable. **Therefore this wildlife problem has a human dimension**.

Why the need for the surveys...
In 1986 an agreement was reached with locals to introduce a moratorium on hunting.
It was proposed that any future harvesting be:
- restrict to sub-adult juveniles
- only RFBs
- regulated by Environment Australia.

Problems...
It is a difficult habitat to work in – wasted effort is not encouraged. How large should each sample area be? What percentage of the island should be surveyed? How many samples are required? Are the samples representative of the different habitats?

Difficulties of working on North Keeling...
It costs approximately $1000 to take the boat to the island. A very large boat is required because it is an ocean crossing. The boat is called the 'Hawke', i.e. after RJ!
The accommodation is two 'igloo huts', the 'big green eggs', which are same as those used in the Antarctic, for people to stay in when working there. People really only want to spend 2 or 3 days there because of the conditions.
There are no jetties which means swimming in from the boat with your gear in plastic bags.
If weather the is too bad, no one can get there at all.

As you walk through water 15–20 cm deep, reef sharks come flying across as you kick up the sand.

Because it is such a difficult place to work in, sampling needs to be made as efficient as possible.

However, you can get quite close to the birds.

Barry's objective was to assess the current methods, e.g.
- How large an area should be sampled, as the whole island is too hard to cover?
- What percentage should be sampled?
- How many samples are needed?
- Are they representative of different habitats?

As well as the boobies, there are extensive Frigatebird colonies – Lesser and Great – and White Terns which follow you (got a sigh of approval from the audience, as they really are very pretty!); and Common Noddy colony; and Brown Boobies. Beach is littered with debris such as thongs. The Red-footed Boobies nest on the outside of the forest, and the Frigatebirds on the inside (30 m Pisonia forest).

Bird List (Allan Burbidge 1996)
Green Junglefowl
Herald Petrel
Wedge-tailed Shearwater
Yellow-nosed Albatross
Red-tailed Tropicbird
White-tailed Tropicbird
Masked Booby
Red-footed Booby
Brown Booby
Great Frigatebird
Lesser Frigatebird
Christmas Frigatebird
White-faced Heron
Little Egret
Eastern Reef Egret
Cattle Egret
Black-crowned Night Heron
Glossy Ibis
Greater Flamingo
Swamp Harrier
Nankeen Kestrel
Buff-banded Rail
Pin-tailed Snipe
Little Curlew
Whimbrel
Common Redshank
Common Sandpiper
Ruddy Turnstone
Sanderling
Sharp-tailed Sandpiper
Pacific Golden Plover
Grey Plover
Greater Sand Plover
Caspian Plover
Oriental Pratincole
Common Tern
Bridled Tern
Sooty Tern
Common Noddy
White Tern
Buffy Fish-Owl
White-throated Needletail
Dollarbird
Barn Swallow
Christmas Island White-eye
Island Thrush

A booby...
"...A dunce; a stupid fellow; a lubber; a bird allied to the gannet, apparently so stupid as to allow itself to be knocked on the head by a stick or caught by hand."
The New Webster Encyclopedic Dictionary 1984.
(Cocos-Malay use a long wooden pole with chain on the end with flag to attract attention, however the latest technique is 12 bore shotgun – much quick and higher death rate.)

Red-footed Boobies...
- Large pelagic seabird that feeds mainly on fish – tropical distribution
- Colonial breeder on tropical islands
- Takes 3 – 4 years to mature and breed
- Nests high (20 m +) in canopy – basic nest
- Breeds once per year
- Clutch size of one and incubation 43 – 47 days
- Brooding is 100 – 140 days

The nest is a flimsy few twigs, chick falls out and the crabs attack them.

Harvesting...
Harvesting has taken place historically by the Cocos-Malays, and RFB are probably used as an additional protein source. However, the level of harvest is unknown with estimates given in 100s to 32 000 per annum. There is legal and illegal harvesting.
People would ask him how many birds they could take!

Almost every Cocos Malay (male presumably) has a gun, but the policeman had all the ammunition. There has been no legal hunting since the late 1980s.

...and for North Keeling?

- The population is 23 200 pairs (or 46 400 breeders)
- Adult mortality = 8% (estimated from Nelson 1978)
- Fledging success – varied 10 – 70% – probably < 0.5 / pair / year)
- Approximately 75% of fledged birds die before maturity (Nelson 1978)

[Graph of annual breeding events which peak in early June, showing 1993 as an extremely poor year at 2000, 1994 at almost 6000, 1995 at just over 7000 and 1996 at 9000, with a secondary peak if the first fails or the birds arrive late.]

RFB survival – hypothetical example...

- 46 000 adults produce...
- 23 000 eggs in one year which is
- ...between 7000 – 20 000 fledglings – approximately 12 000 per year...
- Of which only 3000 return to breed three years later...
- But 4000 adults die per year
- Therefore in three years the population loss is 12 000 and population gain 9000 – negative growth
- ...a problem!!!

[Graph of population 1987 – 1995]

Population estimates – method

- Establish transect as sample Count birds (Z)
- Estimate area of transect (Y)
- Know transect area as proportion of suitable habitat (area/Y)
- Multiply number of birds (Z) seen by (area/Y)
- ...seems simple but...

There were real problems with they way that they were doing it. They set up initially 4 transects but went up to 13 and came down again. They put them in the best bit of habitat with the easiest access.
[Maps showing different styles of transects]
[Graphs of population estimates ranging from approximately 35 000 (1985), 46 000 (1986), 43 000 (1987), 45 000 (1988), 38 000 (1993) and nest density per hectare]

Problems with transects

- Is transect representative of population (variation creates over or under estimate population)?
- Is transect representative of habitat ('best' or 'average' habitats)
- Multiple transects avoid problems but transects must be similar
- Are transects randomly selected?
- Are counts similar (inter-observer variation)?
- What assumptions are being made?

[Graph of transects from 1985]

Data recorded from transects...

- Number of active
- Nest contents
  - Egg
  - Age of chick (+/- 4 weeks)

He had no confidence that the data was correct, as it is extremely difficult to age chicks.

...but sustained harvesting requires

- Accurate and precise population size
- Recruitment to breeding population must be greater than adult mortality
- Sustainable harvest must be less than rate of increase of breeders

Sustained harvesting...

- Need to know
  - Breeding population
  - Population increase (fledglings + immigration)
- Population loss (mortality + emigration)
- Is harvesting **additional** or **compensatory** mortality?

What was wrong with the method?

- Original transects were in optimum habitat (over estimates population)
- Transects were based on trees not fixed width (not area based)
- Transects were not replicates (different lengths and different places)
- Transects were subdivided into smaller sub-samples (samples not independent)
- Area of suitable habitat varied between years

His suggested improvements...

- Collect the minimum data necessary to answer harvesting question
- Number of active nests = breeding population size
- Number of chicks/year = productivity
- Use similar fixed area transects (not trees)
- Randomise the placement of samples
- Train observers for consistency (it takes time to get your eye in)

...but also

- Better surveys fail to answer human question – was the harvest important?
- Better answers needed to reduce poaching
- Improved survey methods must involve stakeholders as participants
- Need to know factors affecting RFB population dynamics (adult mortality)
-

He suggested that they could reduce the poaching by having the boat they named the "RJ Hawke" to patrol and stop the poaching by fining the people. He also suggested that they get the Cocos-Malays to do the surveys not white people like himself because they have a big stake in this.

Fairly soon after he left the island they were going to take the Cocos-Malay women to the island for the first time ever for a picnic and they were quite excited because this had been a 'men only' thing up until then.

Conclusions to the harvesting question

Wildlife management always needs to consider:

- **The wildlife dimension – EASIER**
  - **ecological**
  - **environmental**
- **The human dimension – HARDER**
  - **Cultural/social/historical**
  - **Political**
  - **Economic**

Summary...

- Survey methods can be improved to give greater confidence of population estimate but may not indicate population decline
- **Harvesting should not be permitted even though it has significance – data are insufficient to calculate harvest**

Answers to member's questions:
There were no police until 1995. The islanders had guns but no shells (the policeman confiscated them), but they would go to Perth and come back with shells in their luggage.

A cyclone came through in the late 1990s that took a lot of the habitat out.

The report said 'No harvesting' so they came back 'So how many is that?' to which he replied 'Well, that's like zero.' They said 'Well no, we can't go back to the Cocos-Malay and say that.'
Barry suggested that they talk to the Cocos-Malay and work with them to find out why they want to harvest them. Was it just something that the young guys wanted to do? How many would satisfy their needs? Could they be given a token number of nestlings?

One communication problem is that the Chief Ranger is a single woman on a mainly Muslim island and the older men won't speak to her.

John Bottomley gave the vote of thanks.

Identifying Banded Pied Oystercatchers in the Field

...Rob Ganley
Phone 52221640 E-mail rgganly@ozemail.com.au

The recording and reporting of sightings of Pied Oystercatchers (POCs) on our shores is an important adjunct to the better understanding of the habits of these striking and engaging waders. POCs are regularly banded at different Victorian locations by a dedicated team of wader enthusiasts led by Clive Minton and a good number of birds seen on our shores carry banding identification.

The following information will enable you to identify banded birds, and the reports of any sightings will be eagerly passed on to Clive's group to further our knowledge of their movements etc.
I will act as the local Geelong area contact, forwarding records back to the wader group and periodically reporting in the Geelong Naturalist pertinent information regarding the movements, age etc of POCs seen in our area. For example, a POC banded at Stockyard Point in August 1997 was re-trapped at Rhyll in 1998, seen again at Rhyll in 1999, re-trapped at Stockyard Point in 2000 and is currently resident at Point Henry, in the company of an un-banded partner.

What is of particular interest is information such as:

- Band identification (both legs)
- Alone or with a partner
- Banding/non banding of partner
- Bird/s sex (female has the longer bill)
- Sighting place/ time/ habitat; anything unusual etc
- Nesting information – breeding behaviour, scrapes, nest/eggs, successful or otherwise rearing young etc
- All of the above pertains to Sooty Oystercatchers also.

Be aware that like other waders, POCs have a penchant for standing on one leg, so be patient, as amputees are few and far between! 'Scopes are not essential but do make life a lot easier; light and shade tends to play tricks and colours like white, yellow and orange, and black and blue can be confusing if the light is not great.
POCs often mate for life, but like in most societies, divorces do occur, and this can be tracked by following pair sightings and individual bird movements with time.

Banding identification: All banded POCs carry bands on both legs. Birds banded after 1988 are identified as listed below. Some bands may have been lost and other (old) combinations exist.
Left Leg – Three coloured bands: 2 or 3 colours but never two the same together, i.e. Red/Yellow/Red but never Red/Red/Yellow
Right Leg – Two identically coloured bands over a metal band.
The eight colours used for the **Left Leg** are:
WHITE (can discolour)
YELLOW (can fade to a dirty white)
ORANGE (can discolour to dirty brown)
RED (can discolour to dirty brown)
LIGHT GREEN
DARK GREEN
BLUE (can fade to a grey)
BLACK

Master Banding codes (**Right Leg**) and from where originally banded are:

WHITE	Hastings & a few from French Island
LIGHT GREEN	Queenscliff
DARK GREEN & YELLOW	Corner Inlet areas
BLUE	Werribee
RED	Stockyard Point & Western Point
ORANGE	Phillip Island

Bird Group Report
15 October 2002
...Trevor Pescott

EGGS

Introduction

This is not a talk about just any old eggs - it's about bird eggs, not so much about how they're formed, I'll leave that to Craig Morley's Birds Inside Out series, but the eggs themselves.

I could have titled it oology for that is really the better way to explain what I want to talk about. -

Oology, that's o-ology, not ool-ogy, is the study and collection of birds' eggs. It is a science that has given us a huge amount of knowledge about birds and conservation, for unless we know where and when birds breed, we can't begin to protect them from population decline. We can have all the feeding, roosting, migratory and plumage data that there are to assemble, but unless we protect the breeding habitat, we will lose the birds.

The simplest form of oology is egg-collecting. Most schoolboys, at least of my generation, had egg collections of sorts. (Did school-girls also do this?) We had a credo of taking only one egg from each nest, we'd put a hole in each egg and with a 'whoosh' blow out the contents. This was, of course, highly wasteful, not the loss of the contents, but in the way the eggs were collected and blown.

Collections

All proper collections were

- side-blown, with just one hole in the side of the egg;
- a full clutch, that is all the eggs in the nest;
- most importantly, all details such as date, locality, site of nest, stage of development of the contents and anything else of interest, were listed in a ledger or card system (now it would be recorded in a computer file).

Some collectors would target certain species, and either trade in eggs or amass large collections of that one bird.

They would go to the patch of bush where they know a particular, preferably rare bird regularly nested, and take the eggs as soon as the clutch was complete.

Of course the birds immediately began again, and as soon as this clutch was complete, it too was collected.

In a year, three, four or more clutches would be taken but the last one, near the end of the season, was usually left.

Did that do much harm? Probably but consider this–

- a robin, for example, has a life-span of about 10 years;
- each year, the pair raises three broods, with 3 eggs in each
- that's 90 eggs from which only 2 birds will reach maturity – the other 88 either fail to hatch or are taken by predators, or the young that do hatch fall to predators or die otherwise.

So is taking some of these clutches of eggs, before the birds have expended much time or energy, really such a serious problem? I don't believe it was when we had many more birds than we have now – habitat loss is far worse than predation in my view.

Oh, for the record, I do not support egg collecting as a hobby given the present precarious population levels of many birds. But the continued study of existing collections is well worthwhile doing.

Many wonderful egg-collections remain, with about 20, containing about 20 000 clutches, in the Melbourne Museum alone.

Much of our knowledge of birds came from oological studies, and from skin collections too, and the Museum is continually requested for access to both eggs and skins.

The importance of egg collections include

- providing baseline data against which climate change (e.g. global warming) can be measured
- the impact of pollution on wildlife (e.g. egg-shell thinning in Peregrine Falcons due to ingestion of D.D.T.)
- changes in bird breeding distribution
- planning the timing of fuel-reduction fires, even roadside lopping of trees under powerlines, to minimise destruction of bird nests.

Shapes

The shape of eggs is based on three main forms – oval or typically egg-shaped, round and pyriform. Ovals can be normal, elongated or swollen but always with the length exceeding the width and with tapered sides.

Pyriform are rather top-shaped, broad and blunt at one end, with a rounded-point at the other.

Colours

Egg colours are remarkably variable between different species including unmarked white, creamy-brown, faint-blue, blue or blue-green, olive-green or olive-brown, red-brown, grey and pink; all of these with various markings such as spots, blotches and streaks.

Sizes

Egg sizes vary according to the size of the bird, but as a general rule, birds with well formed, nidifugous, young lay relatively larger eggs.

The Brown Kiwi has the distinction of laying the largest egg for body size of any bird. The egg weighs about 14% or 1/7 of the bird's body weight.

The largest ever found is the Elephant Bird, the smallest some of the humming-birds.

The Australian bird with the largest egg is the Southern Cassowary (egg average size 138 x 95 mm) with the Emu a close second (av. 133 x 89 mm). Among the smallest are the Weebill, Slender-billed Thornbill and Zebra Finch, each 15 x 11 mm.

These are, of course, average figures gained from measuring many eggs in different collections.

Incubation

Incubation varies from about 12 days or less in small birds like thornbills to 56 days in the Emu and from 49–90 days in the Malleefowl.

Newly-hatched young are described as either

- nidifugous or precocial, leaving the nest shortly after they hatch or
- nidicolous or altricial, which are born underdeveloped, naked, blind.

As a general rule, the incubation period is longer for nidifugous birds, but the nests are often skimpy or the eggs are laid on the ground – these include quail, lapwings, dotterels and Emu.

20th Century

First, a question ... what was the largest egg found in Australia in the 20th century? The answer comes later.

Over those 100 years, some exciting oological discoveries were made.

Paradise Parrot clutch 4–5, white, round 21 x 17 mm. The bird is extinct, but Beruldsen made a note – 'two occupied nests were found several years ago. Unfortunately permission to publish full details has not been forthcoming.' Now that's a puzzle! The last confirmed breeding record was March 1922.

Banded Stilt clutch 3–4, chalky-white with spots, blotches and lines of brownish-black, pyriform, 55 x 40 mm. Not known nesting until 1930s, but found then on inland salt lakes. There are more recent records of vast colonies in Central Australia.

Sharp-tailed Sandpiper, not recorded nesting until 1957, although it has always been a common migrant. In 1905 Richard Trebilcock, a member of the original GFNC, was a member of an expedition into Russia and Siberia unsuccessfully searching for the nest location.

Other notable discoveries last century were

- Gibberbird
- Grey Grasswren
- Hall's Babbler
- Eungella Honeyeater

These were 'new' species so obviously their eggs had not been taken before.

Now, the answer to my question ...

The largest egg found in Australia was that of a Madagascan Elephant Bird washed onto the beach in Western Australia in the 1990s. After some heated debate about ownership, the egg was said to have been buried in the sand near where it was found.

Elephant Bird eggs measure about 300 x 250 mm and contain about 8 litres of yolk and white. The bird has been extinct since the 1600s, so how that egg reached Australia is a mystery.

There is an Elephant Bird egg purchased by Professor McCoy for the Melbourne Museum (then National Museum) in 1860 for 100 pounds, from a French dealer. It remained a prize exhibit until someone x-rayed it to see what it contained – only to find it was a plaster fake!

Since then a real egg has been acquired by the Museum but its provenance is unknown.

The Elephant Bird is thought to have given rise to the fable of the Roc in the stories of the Arabian Nights.

References:

Beruldsen, Gordon *A Field Guide to Nests and Eggs of Australian Birds* 1980 Rigby

November meeting...

Danny Rogers will be speaking about 'The Painted Snipe'

Mid-week Bird Group Report
Granite Road, Anakie

Thursday, 17th October, 2002

...Vernon Cohen

A fine Spring morning heralded the day as fourteen members of the Mid-Week Bird Group met John Bottomley, our leader for the day, outside the Anakie General Store. We drove a short distance to a site on the south side of Granite Road, which is an extension of the You Yangs range. This area has some spectacular granite outcrops as well as herb rich woodlands. In past years it has been used for gravel extraction and has become a dumping ground for many to get rid of their rubbish.

Recently it has been purchased by Mr Russell Wadsworth. He plans to link it with Land for Wildlife and has sought the support of our Club to survey the flora and fauna on the property.

As we arrived at the site we realised that we were not the only ones on the survey as already a number of vehicles were parked at the entrance. Our group made its way through the lower woodland and then upward through the granitic boulders, many of them beautifully sculptured by the wind over many centuries. (I believe that some of these hollows are called tafoni.) On reaching the top of the saddle we were rewarded with wonderful views, to the east – the You Yangs, to the north – the plains to Bacchus Marsh, and to the south – Geelong in the distance with Mt. Anakie in the foreground. It was agreed to explore the east end of the property first and twenty-four species of birds were seen. After a late morning tea break, some of the group decided to survey the west end of the property discovering an extra seven species. It was felt that these extras were probably due to the fact that the land on the other side of the boundary fence was cleared farmland.

Some of the group were seduced by the plant-life and found themselves joining those surveying the flora. At morning tea, 11.30 am, we were surprised to see how many other Club Members had joined us. They had been surveying the reptiles, insects, and mammals. When the reports from the various groups are put together we should find that this unique property will be a valuable reserve to be included in Land for Wildlife. We hope that other members of our Club may be allowed to visit it in the future and to add to the lists which have been made.

In conclusion, I would like to say how fortunate we are as members of Geelong Field Naturalists Club to be able to share in such outings, to learn from others more knowledgeable than ourselves as well as making our own discoveries. Do avail yourself of these wonderful occasions.

[The bird list will be published with the other surveys next month. Ed.]

Mid-week Bird Group Excursion Report

26 September, 2002 Portarlington Sewage Ponds

...Polly Cutcliffe

Thirteen members and three visitors took advantage of Peter Bright's leadership and privileged access to this facility. Although the weather was quite cool and overcast, rain didn't eventuate.

There are four ponds with landscaping on one side, but otherwise surrounded by plantings of native tree species (Eucalypts, Acacias and Allocasuarinas) and introduced Pines, which are watered by the treated effluent.

The ponds contained seven species of ducks: Chestnut Teal, Grey Teal, Musk Duck, Blue-billed Duck, Australian Shelduck, Australasian Shoveler and Hardhead. Also a few Black Swans (one with cygnets) and numerous Hoary-headed Grebes, Welcome Swallows were taking advantage of the insect life along the edges.

Although the managed woodland doesn't look very healthy in places and is still not mature, we saw many species, particularly the bigger birds such as Black-faced Cuckoo-shrike, Crimson Rosella, Eastern Rosella, Red Wattlebird and Magpie, but a small remnant of natural woodland in one corner had, comparatively, the greatest diversity of bird-life – Rufous and Golden Whistlers, Brown and Yellow-rumped Thornbills. Superb Fairy-wren, Spotted Pardalote, Goldfinch, Grey Fantail (ubiquitous throughout), White-plumed Honeyeater and Horsfield's Bronze Cuckoo.

A flock of Red-browed Finches fossicked in an open grassed area; the lone Diamond Firetail, seen by Peter on his two previous visits, could not be located but was plainly heard calling here also.

The landscaped area was home to an assortment of small birds (wrens, thornbills, fantails) and a Pallid Cuckoo was seen here.
In all we recorded 57 species and thoroughly enjoyed the morning's observations. Thank you Peter!

Blue-billed Duck
Musk Duck
Black Swan
Australian Shelduck
Australasian Shoveler
Grey Teal
Chestnut Teal
Hardhead
Hoary-headed Grebe
White-necked Heron
Australian White Ibis
Straw-necked Ibis
Swamp Harrier
Brown Goshawk
Brown Falcon
Masked Lapwing
Silver Gull
Whiskered Tern
Spotted Turtle-dove
Galah
Sulphur-crested Cockatoo
Crimson Rosella
Eastern Rosella
Red-rumped Parrot
Pallid Cuckoo
Horsfield's Bronze-Cuckoo
Superb Fairy-wren
Spotted Pardalote
Striated Pardalote
Brown Thornbill
Yellow Thornbill
Yellow-rumped Thornbill
Striated Thornbill
Red Wattlebird
White-plumed Honeyeater
New Holland Honeyeater
White-fronted Chat
Golden Whistler
Rufous Whistler
Grey Shrike-thrush
Magpie Lark
Grey Fantail
Willie Wagtail
Black-faced Cuckoo-shrike
Australian Magpie
Little Raven
Skylark
Red-browed Finch
Diamond Firetail
European Greenfinch
European Goldfinch
Welcome Swallow
Tree Martin
Fairy Martin
Silvereye
Common Blackbird
Common Starling

Mid-week Bird Group Excursions

NOVEMBER

Thursday, 21 November, 2002
Lake Connewarre and Hospital Swamps

Leader: Gordon McCarthy
Gordon has kindly agreed to share his knowledge of this area. There should be lots of bird activity at this time, and waders will have returned.

Meet: 9.00 am at the turning circle at the end of Staceys Road, overlooking Lake Connewarre. (Melways Key Map p.15)
Finish: About 12.30 pm
Enquiries: Polly 5244 0182

DECEMBER

Thursday, 19 December, 2002

Belmont Common

Leader: Don Jennings
When Don is playing golf on the Common, the ball is not the only thing he is keeping an eye on. He and Rhonda always seem to know which birds are where, and the Common is home to a wonderfully diverse range of birds.
Meet:
8.30 am at the Jerringot Bird Hide
Finish: About midday
Enquiries: Polly 5244 0182

JANUARY

Thursday, 16 January, 2003

Limeburners Lagoon, Corio

Observing birds in and around the Lagoon, including the mangrove boardwalk.
Meet:
9.00 am at the Grammar School Boat Ramp carpark in Foreshore Road, Corio (about 1/2 km from the Shell Parade turnoff). Melways 224 K7
Please bring telescopes
Finish: About 12.30 pm
Enquiries: Polly 5244 0182

Bird Observations October 2002

...Compiled by John Bottomley

Two factors seem to have played a role in shaping our observations this month. The first of these, the true arrival of spring, has seen the return of many migrants and a great deal of nesting activity. The second, the continuing lack of significant rain to our North, has continued to throw unusual species our way and seen the earlier than usual arrival of many migrants. Among the species for which we have reports of breeding or nest building (not all listed below for reasons of space) are Australasian Bittern, Black-shouldered Kite, Brown and Peregrine Falcons, Banded Lapwings, Crested Pigeons, Eastern Rosellas, Red Wattlebird, Jacky Winter, Scarlet Robin, Restless Flycatcher, Magpie-lark, Willie Wagtail, Dusky Woodswallow, Australian Magpie, Little Raven and Red-browed Finch. Many of our summer migrants, White-winged Triller, Olive–backed Orioles, Rufous Whistlers and the like have arrived early this year. This no doubt reflects harsh conditions further north. Whether it heralds a hot summer remains to be seen. Our two most unlikely observations are of a White-throated Gerygone and a White-headed Pigeon. Both are birds not normally seen in the Geelong region, this being particularly the case with the latter for which this is a first record in this area. Keep your eyes open for further oddities if the dry weather continues.

Observers were:
BAt, Bryant Atwood; DHe, Dean Hewish; GBa, Grant Baverstock; GMc, Gordon McCarthy; JB, John Bottomley, JCa, Jocelyn Calvert; JN, John Newman; LP, Lorraine Preston; LPh, Lorraine Phelan; MAC, Margaret Cameron; MHe, Marilyn Hewish; RG, Rob Ganly; RMc, Rod McKenzie; RP, Bob Preston; VWSG, Victorian Wader Study Group.

Species	Number	Date	Comments	Observer
Brown Quail	1	25/08/02	Sheoaks.	GBa
Freckled Duck	72	6/10/02	Lake Lorne. Three also on 13/10/02.	LP, RP
Intermediate Egret	1	9/10/02	Lake Gherang.	RMc
Spotted Harrier	2	11/09/02	Inverleigh. 6 kms. Southwest of township.	RMc
	1	25/09/02	Avalon at Snake Island.	RG, GMc
Brolga	1	9/10/02	Lake Gherang.	RMc
Latham's Snipe	2	2/10/02	Point Henry in wetlands below the Signal Station.	BAt
	2	5/10/02	Jerringot near Golf Course.	BAt
Great Knot	3	13/10/02	Swan Island Rubbish Tip.	RG, VWSG
Red Knot	250+	13/10/02	Swan Island Rubbish Tip.	RG, VWSG
Grey Plover	50+	13/10/02	Swan Island Rubbish Tip.	RG, VWSG
Banded Lapwing	2+	22/09/02	Gnarwarre. A pair with at least one small chick.	BAt
	16	29/09/02	Princes Highway at Devon Road. One downy chick and one juvenile.	JN
White-headed Pigeon	1	30/09/02	Brisbane Ranges, DeMotts Road, Anakie. First record for Geelong region.	JB, JCa
Brush Bronzewing	Several.	20/09/02	You Yangs. Common.	RMc
Swift Parrot	1	30/09/02	Leopold.	RMc
Pallid Cuckoo	Several.	From 7/09/02	Bacchus Marsh, present 7/09 - 29/09/02. Long Forest, present 26/09 - 9/10/02.	MHe
	1	22/09/02	Leopold.	RMc
	1	6/10/02	Balliang East.	BAt
Fan-tailed Cuckoo	1	10/09/02	Barwon River, Wal Whiteside Walk.	BAt
	1	21/09/02	Wallington.	BAt
	1	14/10/02	Barwon River, Zillah Crawcour Park.	BAt
Black-eared Cuckoo	1	20/09/02	You Yangs below Big Rock.	RMc
Horsfield's Bronze-Cuckoo	1	19/09/02	Barwon River, Wal Whiteside Walk.	BAt
	1	21/09/02	Mount Duneed.	BAt
	1	22/09/02	Gnarwarre.	BAt
	1	11/10/02	Torquay, Grasstree Park.	BAt
Shining Bronze-Cuckoo	1	10/10/02	Ocean Grove Nature Reserve.	RMc
Barking Owl	1	5/10/02	Long Forest. Responded to tape.	MHe
Southern Boobook	1	11/09/02	Lethbridge. Heard calling.	GBa
Barn Owl	1	27/08/02	Lethbridge. Also 14/09/02.	GBa
Chestnut-rumped Heathwren	1	13/10/02	Angahook Lorne State Park. Singing from heath thicket.	JN
Speckled Warbler	2	24/09/02	DeMotts Road, Anakie. Flitting from tree to tree, Cryptic.	JB
White-throated Gerygone	1	29/09/02	Inverleigh Common. An uncommon vagrant in the Geelong region.	MAC
Fuscous Honeyeater	1	6/10/02	Long Forest. Passing through.	DHe

...continued page 16

Species	Number	Date	Comments	Observer
Jacky Winter	1	20/09/02	Steiglitz.	LPh
	2	10/10/02	Long Forest. One sitting on nest in Grey Box. The other feeding it.	MHe
Red-capped Robin	1	20/09/02	You Yangs. A male bird.	RMc
Flame Robin	3	23/09/02	Long Forest. Brown birds. A late record, none seen 10/10/02.	MHe
Rose Robin	1	10/10/02	Lethbridge cemetery. First observation for Lethbridge area.	GBa
Pink Robin	1	12/09/02	Geelong Botanic Gardens. A late record.	GBa
Crested Bellbird	1	6/10/02	Long Forest. First definite record since 1986.	MHe, DHe
Rufous Whistler	3	20/09/02	You Yangs. First this season.	RMc
	Present	21/09/02	Long Forest. First record this season.	MHe
Satin Flycatcher	1	15/09/02	Inverleigh Common. A male bird.	GBa
Restless Flycatcher	1	24/08/02	Lethbridge. Present until 28/08/02.	GBa
	1	15/09/02	Inverleigh Common.	GBa
	2	29/09/02	Inverleigh Common. A pair. One collecting spider webs.	MAC
	2	10/10/02	Long Forest. A pair. Building a nest.	MHe
White-winged Triller	Present	29/09/02	Long Forest. First record this season.	MHe
Olive-backed Oriole	1	29/08/02	Mount Duneed.	GBa
	1	20/09/02	Brisbane Ranges, Manna Gum Track.	LPh
	2	20/09/02	You Yangs.	RMc
	1	23/09/02	Brisbane Ranges, DeMotts Road Anakie. Calling constantly since this date.	JB
	1	6/10/02	Angahook - Lorne State Park at the Gumflat.	JN
Masked Woodswallow	Present	6/10/02	Long Forest. First record this season.	MHe
White-browed Woodswallow	Present	2/10/02	Long Forest. First record this season.	MHe
	10+	10/10/02	Inverleigh Common.	RG.
	7	12/10/02	Leopold.	RMc
Dusky Woodswallow	2	12/10/02	Buckley Falls. Building a nest in fork in eucalypt.	BAt
	6	15/10/02	Buckley Falls.	BAt
Mistletoebird	1	7/10/02	Brisbane Ranges, DeMotts Road, Anakie.	JB
	2	10/10/02	Newtown, Lloyd King reserve. A pair.	BAt
Tree Martin	Present	9/10/02	Long Forest. First record this season.	MHe
Clamorous Reed-warbler	1	3/10/02	Pollocksford.	BAt
Rufous Songlark	1	9/10/02	Lake Gherang.	RMc
Brown Songlark	1	5/10/02	Reedy Lake. A non-breeding male.	RMc

Snipefest Report

...Valda Dedman

October 22 was a rare fine day for a fine event. Grade 3 students from Chilwell Primary School were enthusiastic participants of Snipefest. They made creative snipe masks, had their faces and their 'wingtips' painted in snipe colours with a dash of golden sunlight added for good measure, found water bugs and beetles and one tiny Pigmy Perch in buckets of Jerringot water and took a nature walk to see some our famous Latham's Snipe.

Thank you to Sheila Silver and Joe Hubbard (mask-making), Dave King (dipping for snipe food), Gordon McCarthy, Ron Mole and Geoff Jones (nature walk). Special thanks to Geoff who donned waders to encourage the snipe to show themselves. Geoff has been doing a survey of the snipe at Jerringot and we look forward to hearing more about his results. Jerringot is perhaps the best place in the world to actually see Latham's Snipe. They never fail us at Snipefest.

One sour note. The interpretation board designed and made by Dave King for changing displays has been completely vandalised. It has been wrenched from its post and was found in the water.

ANNUAL HOODED PLOVER SURVEY

WHEN	9 – 10 November
WHERE	Queenscliff to Lorne
WHO	Everybody is welcome!

This year the survey will incorporate Oystercatchers as well, with emphasis on recording any bandings of either species.

Please contact Rob Ganly on 5222 1640, or E-mail rganly@ozemail.com.au if you are interested in joining a team to survey a portion of our beach territory.

The more eyes the better, and any 'scopes will be a bonus in reading bands.

Your time and effort will be much appreciated and will help ensure that Hooded Plovers and Oystercatchers have a bright future.

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Geelong Field Naturalists Club Inc.

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Early lodgement of articles (small & large) would be a great help – late copy may not be accepted.
Hard copy or diskette to P.O. Box 1047, Geelong, 3200
Email: cndgreenwell@myplace.net.au
Phone Claire 5243 7047 or 0416 006407

(Correct names, spellings and appropriate capitals would also be appreciated.)

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Meetings start at 8.00 pm at:
The Meeting Room behind the big hall at Clairvaux Catholic School, Reynolds Road, Belmont.
Use the driveway between the big hall and the playing field.

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